

Software

The LifeNet™ database application is programmed in ACIUS's 4th Dimension language with the 4D Server and Client program. It can therefore run in a standard Windows/Macintosh mouse-click office environment, and requires no additional, specialized software programming from the user.

The object oriented design of our database divides it into four main component modules that are interrelated: Scheduling, Dispatch, Clinical, and Billing. Final charting and record documentation is achieved through the combination of appropriate elements from all modules. See Figure 1.

The Scheduling module accomplishes the task of preparing schedules for the respective transport bases of an air medical service, including dispatch, flight crew members, base physician, pilot (co-pilot), and stationed helicopter in service for a given shift. Data can be entered well in advance and updated up to the time a flight is actually dispatched. See Figure 2.

The Dispatch module is divided into three interrelated subcomponents: Schedule, Standby and Flight. See Figure 3.

The Schedule subcomponent shares shift information already entered in the Scheduling module to generate a flight record based on the date, time, and base from which the flight takes place. As mentioned above, upon flight dispatch, the dispatcher will receive the current base physician, crew and helicopter information for verification and update, if required.

The Standby subcomponent enables the dispatcher to gather information regarding scene location, ground contacts, and basic patient scenario and demographics prior to committing and dispatching a flight. This allows agencies requesting air medical transport services to provide an early warning, verify the need for air transport and hence shortening scene response and flight times.

The Flight subcomponent constitutes the main portion of the Dispatch module, and records information pertinent to the flight proper, and tracking through timed and recorded position checks in accordance with Federal Aviation Agency (FAA) and Commission on Accreditation of Medical Transport requirements. Scene with rendezvous and landing zone location, with address and zip code, as well as Thomas Bros. reference, waypoint/long-lat location, requesting agency, ground contact, communication frequency and reason for call are all recorded. Also, type and nature of call, base hospital, closest and receiving hospitals are gathered. Mileage

traveled and time stamping, including scene time, flight time and specialty times, such as crew change and pick up times as well as on site times, are calculated and recorded automatically from the information provided and dispatch feedback from flight crew. In addition, reason and time for flight diversions and reroutings and elected ground transports with justification and alternate plans are entered into the database chart as well. Multiple flights can be orchestrated and recorded in a parallel fashion, while dispatcher and/or base physician change shifts during a flight - all data is constantly updated. When backup vehicles are required and dispatched, flight information is transferred automatically from the primary response request data.